

# Nano-Grodziskie

- Gravity **8.8 BLG**
- ABV **3.4 %**
- IBU **20**
- SRM **2.8**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                               | Amount     | Yield | EBC |
|-------|------------------------------------|------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 3 kg (75%) | 80 %  | 3   |
| Grain | Strzegom Pale Ale                  | 1 kg (25%) | 79 %  | 6   |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Marynka | 20 g   | 30 min | 10 %       |
| Aroma (end of boil) | Tomyski | 30 g   | 10 min | 2.8 %      |

## Yeasts

| Name                | Type  | Form   | Amount | Laboratory       |
|---------------------|-------|--------|--------|------------------|
| FM51 Grodzie Dębowe | Wheat | Liquid | 250 ml | Fermentum Mobile |

## Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Fining | mech | 5 g    | Boil    | 10 min |